

The opinion in support of the decision being entered today is  
*not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* PETER KRULEVITCH,  
JULIE HAMILTON and  
WILLIAM J. BENETT

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Appeal 2007-1369  
Application 10/032,257  
Technology Center 1700

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Decided: June 21, 2007

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Before EDWARD C. KIMLIN, JEFFREY T. SMITH, and LINDA M.  
GAUDETTE, *Administrative Patent Judges*.

KIMLIN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1-5 and 16-19.

Claim 1 is illustrative:

1. A microfabricated biopsy and analysis instrument for biopsy and analysis of tissue with minimal handling of the tissue, consisting of:

a body comprising a silicon substrate and a glass substrate positioned together,

a cutter having a tapered opening with a sharp edge for cutting the tissue, said cutter located in said silicon substrate,

a specimen chamber located in said silicon substrate and said glass substrate immediately below said cutter, said specimen chamber positioned to directly receive the tissue cut by said cutter,

a specimen treatment and analysis chamber located in said silicon substrate and said glass substrate abutting and connected directly to said specimen chamber and located adjacent said specimen chamber,

an analysis unit in said specimen treatment and analysis chamber,

a PCR reaction chamber located in said silicon substrate and said glass substrate directly abutting and connected directly to said specimen treatment and analysis chamber, said PCR reaction chamber constructed to receive the tissue from said specimen treatment and analysis chamber, and

a heating unit in said body adjacent said PCR reaction chamber.

The Examiner relies upon the following references as evidence of obviousness:

Pourahmadi	WO 99/33559	Jul. 8, 1999
Krulevitch ('217)	US 5,985,217	Nov. 16, 1999
Krulevitch ('474)	US 6,219,474 B1	Nov. 20, 2001

Appellants' claimed invention is directed to a microfabricated biopsy and analysis instrument for tissue. The instrument consists of, *inter alia*, a specimen treatment and analysis chamber located in silicon and glass substrates positioned together, and a PCR reaction chamber also located in the silicon and glass substrates. The PCR reaction chamber directly abuts

and is directly connected to the specimen treatment and analysis chamber and is constructed to receive tissue therefrom.

Appealed claims 1-5 and 16-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Krulevitch '217 or Krulevitch '474 in view of Pourahmadi.

Appellants fail to set forth an argument that is reasonably specific to any particular claim on appeal. Accordingly, all the appealed claims stand or fall together with claim 1.

We have thoroughly reviewed each of Appellants' arguments for patentability. However, we find ourselves in complete agreement with the Examiner's reasoned analysis and application of the prior art, as well as his cogent and thorough disposition of the arguments raised by Appellants. Accordingly, we will adopt the Examiner's reasoning as our own in sustaining the rejection of record, and we add the following for emphasis only.

Appellants do not dispute the Examiner's factual determination that the Krulevitch patents disclose an instrument for biopsy and analysis of tissue comprising all the claimed features with the exception of a PCR reaction chamber having a heating unit adjacent to the PCR reaction chamber. However, for the reasons set forth by the Examiner, we are convinced that it would have been obvious for one of ordinary skill in the art to modify the instrument of Krulevitch to include the claimed PCR reaction chamber in view of the Pourahmadi disclosure. The Examiner properly points out that Krulevitch discloses that the instrument can be incorporated into a microfluid system comprising existing micro valves and pumps and is intended to be used for acquiring specimens for DNA analysis. Pourahmadi,

on the other hand, demonstrates that it was known in the art to combine a microfabricated sample preparation device, which includes tissue cutting, with a microfabricated analyte detection structure and/or a polynucleotide amplification structure. As set forth by the Examiner, "[t]he instrument [of Pourahmadi] includes a specimen treatment section (including treatment chambers 107, 119, 122, 141) located adjacent the specimen chamber (103) and a PCR reaction chamber that is integral or abuts the specimen treatment section" (Answer 4, second para.).

Hence, based on the collective teachings of the applied prior art, we fully concur with the Examiner's legal conclusion that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the device of the references of Krulevitch et al. with a PCR chamber directly connected to the sample treatment chamber for the known and expected result of further processing the tissue sample within the same device as suggested by the reference of Pourahmadi et al. while providing the advantages associated with the structure of the device of Krulevitch" (sentence bridging pages 4 and 5 of Answer). In our view, Appellants' claimed microfabricated biopsy and analysis instrument represents nothing more than a combination that unites old elements of the prior art with no change in their respective functions and which yields predictable results. *KSR Int'l v. Teleflex, Inc.*, 127 S. Ct. 1727, 82 USPQ2d 1385 (2007). Appellants have apprised us of no unexpected results associated with the presently claimed modified instrument of Krulevitch.

Appellants make the argument that Pourahmadi "fails to show a microfabricated biopsy and analysis instrument for biopsy and analysis of tissues with minimal handling of the tissue, 'consisting of' the specific

combination of elements enumerated in Appellants' claims 1-5 and 16-19 on appeal" (Principal Br. 11, second para.). However, the Examiner sets forth a convincing argument that the claim language "specimen treatment and analysis chamber," when read in light of the present Specification, "includes additional structural elements that are not positively recited in the instant claims," such as the additional elements disclosed by Pourahmadi (Answer 5, second para.). Moreover, Appellants' argument misses the thrust of the Examiner's rejection, i.e., the obviousness of modifying the instrument of Krulevitch by incorporating the PCR reaction chamber of Pourahmadi. It is well settled that it is not necessary for a finding of obviousness that all the features of one reference be bodily incorporated into the invention of another reference. *In re Griver*, 354 F.2d 377, 381, 148 USPQ 197, 200 (CCPA 1966); *In re Billingsley*, 279 F.2d 689, 691, 126 USPQ 370, 372 (CCPA 1960).

As a final point, as noted above, Appellants base no argument upon objective evidence of nonobviousness, such as unexpected results, which would serve to rebut the inference of obviousness established by the applied prior art.

In conclusion, based on the foregoing and the reasons well stated by the Examiner, the Examiner's decision rejecting the appealed claims is affirmed.

Appeal 2007-1369  
Application 10/032,257

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(iv)(effective Sept. 13, 2004).

AFFIRMED

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